Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

Reserve
1.96
R31Fsw

Federal-State Cooperative Snow Surveys and Water Supply Forecasts for NEVADA

LIBRARY
CURRENT SERIAL RECORD
JUN 21 1955
U. S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE
NEVADA AGRICULTURE EXPERIMENT STATION
AND
NEVADA STATE ENGINEER

Data included in this report were obtained by the agencies named above in cooperation with the Federal, State and local organizations listed on the last page of this report.

AS OF

FEBRUARY 1, 1955

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY
AND WATER SUPPLY FORECAST REPORTS:

Forecasts by U. S. Weather Bureau of total annual streamflow October-September, inclusive, at more than 300 gaging stations are issued monthly January through May in the publication WATER SUPPLY FORECASTS FOR THE WESTERN UNITED STATES.

Weather Bureau forecasts of runoff presented in that bulletin are computed from procedures based on mathematical analysis of the relation between precipitation and runoff.

The Weather Bureau bulletins may be secured by writing to:

Hydrologist in Charge
River Forecast Center
U. S. Weather Bureau
712 Federal Office Building
Kansas City 6, Missouri

For current information on local river and flood conditions, reference should be made to the appropriate River District Office, listed below:

Meteorologist in Charge Weather Bureau Airport Station Box 1250 Reno, Nev.	Truckee, Carson, Walker and Susan River Basins.
Climatologist Weather Bureau Office 501 Federal Bldg. Salt Lake City 1, Utah	Humboldt River Basin and other miscellaneous Basins in Nevada with the exception of the Truckee, Carson, Walker and Susan River Basins

State of Nevada

FEDERAL - STATE COOPERATIVE

SNOW SURVEYS AND WATER SUPPLY FORECASTS

for

N E V A D A

Report Prepared
by

Norman S. Hall, Hydraulic Engineer

Soil Conservation Service
1485 Wells Avenue
Reno, Nevada

Issued by

George Hardman
State Conservationist
Soil Conservation Service

Hugh A. Shamberger
Nevada State Engineer

February 9, 1955

U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

7-0-14858-L

NUMBER	NAME	SEC.	TWP.	RGE.
	SNAKE RIVER			
15-H- 1	Bear Creek	31	46N	58E
15-H- 2	Fox Creek	33	46N	58E
15-H- 3	76 Creek	6	44N	58E
15-H- 5 *	Gold Creek	31	45N	56E
15-H- 4 *	Big Bend	30	45N	56E
	OWYHEE RIVER			
17-H- 2 *	Lower Buckskin	25	45N	39E
17-H- 1 *	Upper Buckskin	11	45N	39E
17-H- 3 *	Martin Creek	18	44N	40E
17-H- 4 *	Granite Peak	22	44N	39E
15-H- 5	Gold Creek	31	45N	56E
15-H- 4	Big Bend	30	45N	56E
15-H- 7 *	Fry Canyon	31	43N	54E
15-H- 6 *	Rodeo Flat	36	43N	53E
16-H- 1	Lower Jack Creek	18	42N	53E
16-H- 2	Upper Jack Creek	9	42N	53E
15-H- 8 *	Tremewan Ranch	9	39N	55E
15-H- 9 *	Taylor Canyon	35	39N	53E
	UPPER HUMBOLDT RIVER			
15-H- 1 *	Bear Creek	31	46N	58E
15-H- 2 *	Fox Creek	33	46N	58E
15-H- 3 *	76 Creek	6	44N	58E
15-H- 5 *	Gold Creek	31	45N	56E
15-H- 4 *	Big Bend	30	45N	56E
15-H- 7 *	Fry Canyon	31	43N	54E
15-H- 6 *	Rodeo Flat	36	43N	53E
16-H- 1 *	Lower Jack Creek	18	42N	53E
16-H- 2 *	Upper Jack Creek	9	42N	53E
15-H- 8	Tremewan Ranch	9	39N	55E
15-H- 9	Taylor Canyon	35	39N	53E
15-H-10	Lower Trout Creek	28	37N	61E
15-H-11	Upper Trout Creek	4	36N	61E
15-J- 1	Dorsey Basin	28	35N	60E
15-J- 2	Ryan Ranch	1	34N	59E
15-J- 3	Dry Creek	5	34N	60E
15-J- 4	Lamoille #1	15	32N	58E
15-J- 5	Lamoille #2	14	32N	58E
15-J- 6	Lamoille #3	24	32N	58E
15-J- 7	Lamoille #4	19	32N	59E
15-J- 8	Lamoille #5	31	32N	59E
15-J- 9	Green Mountain	23	29N	57E
15-J-10	Harrison Pass #1	9	28N	57E
15-J-11	Harrison Pass #2	16	28N	57E
15-J-12	Corral Canyon	27	28N	57E
	LOWER HUMBOLDT RIVER			
17-H- 2	Lower Buckskin	25	45N	39E
17-H- 1	Upper Buckskin	11	45N	39E
17-H- 3	Martin Creek	18	44N	40E
17-H- 4	Granite Peak	22	44N	39E
17-H- 5	Lamance Creek	13	42N	38E
16-H- 3	Midas	18	39N	46E
17-K- 1	Big Creek Camp Ground	10	17N	43E
17-K- 2	Big Creek Mine	23	17N	43E
17-K- 3	Upper Big Creek	26	17N	43E
17-L- 1	Lower Corral	12	11N	40E
17-L- 2	Upper Corral	20	11N	41E
17-J- 1	Golconda	22	35N	39E
	EASTERN NEVADA			
15-J-13	Cave Creek	25	27N	57E
15-J-14	Hager Canyon	34	27N	57E
14-K- 3	Murray Summit	25	10N	62E
14-L- 1	Baker #1	29	13N	69E
14-L- 2	Baker #2	30	13N	69E
14-L- 3	Baker #3	25	13N	68E
14-K- 2	Berry Creek	26	17N	65E
14-K- 1	Bird Creek	34	19N	65E
15-K- 1	Robinson Summit	34	18N	61E
15-K- 2	Kimberly	18	16N	62E
	LOWER COLORADO RIVER			
15-N- 6	Rainbow Canyon	31	19S	57E
15-N- 5	Kyle Canyon	26	19S	56E
15-N- 4	Lee Canyon #1	10	19S	56E
15-N- 3	Lee Canyon #2	9	19S	56E
15-N- 7	Rainbow Canyon #2	6	20S	57E
14-M- 1	Mathew Canyon	11	5S	70E
14-M- 2	Pine Canyon	11	6S	69E

NUMBER	NAME	SEC.	TWP.	RGE.
	CENTRAL GREAT BASIN			
15-N- 2	Clark Canyon	8	19S	56E
15-N- 1	Trough Springs	23	18S	55E
	NORTHERN GREAT BASIN			
19-H- 1	Bald Mountain	17	45N	21E
18-H- 1	Disaster Peak	8	47N	34E
	LAKE TAHOE			
20-L- 4	(Cal.) Lake Lucille	28	12N	17E
20-L- 1	(Cal.) Rubicon #1	6	13N	17E
19-L- 3	(Cal.) Hagans Meadow	36	12N	18E
19-L- 2	(Cal.) Freel Bench	36	12N	18E
20-K-17	(Cal.) Ward Creek	21	15N	16E
19-L- 1	(Cal.) Upper Truckee	21	12N	18E
20-K-16	(Cal.) Tahoe City	6	15N	17E
20-L- 2	(Cal.) Rubicon #2	6	13N	17E
20-K-18	(Cal.) Rubicon #3	32	14N	17E
20-L- 3	(Cal.) Richardsons #2	6	12N	18E
20-L- 5	(Cal.) Echo Summit	6	11N	18E
19-K- 4	Marlette Lake	13	15N	18E
19-L-14	Daggetts Pass	19	13N	19E
19-K- 6	Glenbrook #2	13	14N	18E
19-K- 2 *	Mt. Rose	7	17N	19E
	TRUCKEE RIVER			
20-K- 5	(Cal.) Independence Lake	9	18N	15E
20-K- 1 *	(Cal.) Webber Peak	30	19N	14E
20-K-10 *	(Cal.) Donner Summit	25	17N	14E
20-K-17 *	(Cal.) Ward Creek	21	15N	16E
20-K- 2	(Cal.) Webber Lake	20	19N	14E
20-K- 6	(Cal.) Sage Hen Creek	7	18N	16E
20-K-16 *	(Cal.) Tahoe City	6	15N	17E
20-K-13	(Cal.) Truckee #2	22	17N	16E
20-K- 3	(Cal.) Independence Creek	14	19N	15E
20-K-14	(Cal.) Boca #2	28	18N	17E
20-K- 8 *	(Cal.) Furnace Flat	10	17N	13E
20-K- 7 *	(Cal.) Fordyce Lake	34	18N	13E
20-K- 9 *	(Cal.) Soda Springs	23	17N	14E
20-K- 4	(Cal.) Independence Camp	34	19N	15E
19-K- 2	Mt. Rose	7	17N	19E
20-K-12	(Cal.) Truckee Ranger Station	10	17N	16E
20-K-11	(Cal.) Donner Lake	14	17N	15E
19-K- 1	Big Meadows	15	18N	18E
19-K- 3	Little Valley	17	16N	19E
20-K-15	(Cal.) Squaw Valley	6	15N	16E
	CARSON RIVER			
19-L-4	(Cal.) Carson Pass	22	10N	18E
19-L-6	(Cal.) Poison Flat	25	8N	21E
19-L-5	(Cal.) Blue Lakes	30	9N	19E
19-K-5	Clear Creek	16	14N	19E
	WALKER RIVER			
19-L-12	(Cal.) Center Mountain	4	3N	23E
19-L- 7	(Cal.) Sonora Pass	1	5N	21E
19-L-11	(Cal.) Buckeye Forks	20	4N	23E
19-L-13	(Cal.) Virginia Lakes	5	2N	25E
19-L- 9	(Cal.) Willow Flat	21	5N	23E
19-L-10	(Cal.) Buckeye Roughs	15	4N	23E
19-L- 8	(Cal.) Leavitt Meadows	4	5N	22E
19-M- 1 *	(Cal.) Tioga Pass	30	1N	25E
18-L- 1	Lapon Meadow	36	8N	28E
18-L- 2	Mt. Grant	23	8N	28E

* Located on adjacent watershed

INDEX to NEVADA SNOW COURSES

PRELIMINARY WATER SUPPLY OUTLOOK

FOR NEVADA

February 1, 1955

```
* * * * * * * * * * * * * * * * * * * * * * * * * *
* Snow stored water in Nevada ranges from poor in *
* the northeastern portion to fair in the Sierras *
* to good in the southeastern section.  Above     *
* normal snowfall for the next two months will be *
* needed in the northern portion to moderate      *
* expected shortages.                             *
* * * * * * * * * * * * * * * * * * * * * * * * * *
```

Key snow courses measured in the Upper Humboldt, Owyhee and Snake River watersheds indicate a snow water content of 50 to 70 percent normal as of February 1. Lake Tahoe and Truckee River watersheds have about 85 percent of normal snowpack at the lower elevations. High elevation snow measures near normal in these two watersheds. Moving south along the eastern slope of the Sierra Nevadas, Carson Pass in the Carson River watershed measured 110 percent normal as of this date. Snow surveys on the headwaters of the Walker Rivers at Sonora Pass and Virginia Lakes indicate a normal snow pack at high elevations.

In southeastern Nevada at Pine and Mathew Canyons on Clover Creek, tributary to Meadow Valley Wash, more snow stored water was measured at this date than since the courses were established in 1949.

Streamflow during January on the West Walker near Coleville was 109 percent of normal while the Humboldt at Palisade was only 48 percent normal. Reservoir storage in general is poor. Lake Mead, behind Hoover Dam, stored 12,305,000 acre feet of usable water. This is only 64 percent of the past ten year average. Rye Patch on the Humboldt stored only 7,000 acre feet which is only 6 percent of the 1943-52 ten year average. Lahontan Reservoir impounded 138,000 acre feet as of February 1 which is 72 percent of the past ten year average.

STATUS OF RESERVOIR STORAGE

FEBRUARY 1, 1955

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (Thous. A.F.)	THOUS. ACRE FEET USABLE STORAGE ABOUT FEB. 1			
			1955	1954	1953	10-yr. Ave. 1943-52
Owyhee	Wildhorse	33	2	16	18	12
Lower Humboldt	Rye Patch	178	7	85	137	116
Colorado	Mohave	1,810	1,654	1,686	1,621	New reservoir
Colorado	Mead	27,217	12,305	16,511	18,972	19,153
Tahoe	Tahoe	732	393	533	600	436
Truckee	Boca	41	3	5	14	10
Carson	Lahontan	286	138	212	240	193
West Walker	Topaz	59	16	36	51	36
East Walker	Bridgeport	42	14	32	35	29

NEVADA SNOW SURVEYS FEBRUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1955 Date of Survey	1955 Snow Depth (In.)	1955 Water Content (In.)	Past Record Water Content (In.) 1954	1953	Average	Years of Record
SNAKE RIVER									
Bear Creek	15H1	7800	2/1	38	9.2	-	-	-	0
Fox Creek	15H2	6800	2/1	22	4.3	-	-	-	0
Hummingbird Springs	15H15	8945	1/31	31	8.1	-	-	-	0
Pole Creek Ranger Station	15H14	8330	1/31	25	6.4	-	-	-	0
Goat Creek	15H13	8800	1/31	22	5.6	-	-	-	0
UPPER HUMBOLDT									
76 Creek	15H3	7100	1/31	23	5.2	-	-	-	0
Gold Creek	15H5	6600	2/2	17	2.3	3.2	5.0	5.4	6
Big Bend	15H4	6700	2/2	18	3.4	5.2	7.0	9.2	7
Fry Canyon	15H7	6700	2/1	25	5.1	4.5	6.5	7.3	5
Rodeo Flat	15H6	6800	2/1	25	5.0	4.6	6.6	7.7	5
Tremewan Ranch	15H8	5700	2/3	9	1.5	-	-	-	0
Lamoille #1	15J4	7100	2/4	25	5.2	7.0	5.6	6.0	10
Lamoille #2	15J5	7200	2/4	23	4.4	5.5	5.7	-	2
Lamoille #3	15J6	7700	2/4	30	6.1	8.2	7.7	-	2
Lamoille #4	15J7	8000	2/4	33	7.3	11.6	11.3	-	2
Lamoille #5	15J8	8700	2/4	43	11.0	15.1	18.7	-	2
LOWER COLORADO									
Mathew Canyon	14M1	6000	1/28	21	8.1	0	0	1.8	6
Pine Canyon	14M2	6200	1/29	21	8.4	0	0	2.2	6
TAHOE									
Hagans Meadow	19L3	8000	1/27	44	14.3	8.5	-	-	2
Freel Bench	19L2	7300	1/27	33	9.7	6.3	-	12.1	5
Ward Creek	20K17	7000	1/28	75	27.7	20.8	-	28.5	7
Upper Truckee	19L1	6400	1/27	29	8.8	5.3	11.4	9.2	8
Tahoe City	20K16	6250	1/31	27	7.3	5.5	14.6	9.4	20
Richardsons #2	20L3	6500	1/26	43	11.7	9.6	16.0	15.7	5
Echo Summit	20L5	7500	1/31	72	25.1	15.8	28.1	25.3	13
Marlette Lake	19K4	8000	1/26	51	16.6	8.5	-	13.7	14
Daggetts Pass	19L14	7350	1/25	28	8.1	5.7	11.9	9.1	8
Glenbrook #2	19K6	6900	1/25	32	9.1	7.2	-	-	3

NEVADA SNOW SURVEYS FEBRUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1955 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1954	1953	Average	Years of Record
TRUCKEE									
Donner Summit	20K10	6900	1/27	77	25.8	19.4	34.2	23.4	33
Sage Hen	20K6	6500	1/31	37	11.1	8.9	17.2	14.6	11
Truckee #2	20K13	6400	1/28	32	9.1	7.4	-	10.1	7
Boca #2	20K14	5900	2/1	26	6.3	3.2	10.1	7.2	7
Furnace Flat	20K8	6600	1/28	88	32.0	22.7	40.7	25.9	28
Fordyce Lake	20K7	6500	1/28	74	24.6	20.4	37.2	22.1	27
Soda Springs	20K9	6750	1/27	74	24.7	18.5	33.8	22.2	25
Truckee Ranger Station	20K12	6000	2/2	36	9.1	6.1	13.4	11.3	6
Donner Lake	20K11	5950	2/1	48	13.4	11.2	22.6	16.4	7
Squaw Valley	20K15	7500	1/31	89	31.1	26.6	47.4	-	2
Independence Camp	20K4	7000	1/31	43	13.4	-	-	-	3
Independence Creek	20K3	6500	1/31	35	10.2	-	-	10.1	4
CARSON									
Carson Pass	19L4	8600	1/27	66	23.6	12.9	26.8	21.1	24
WALKER									
Sonora Pass	19L7	8800	1/25	48	14.6	7.9	-	-	1
Virginia Lakes	19L13	9500	1/25	39	11.4	6.9	-	-	1
Tioga Pass	19M1	9900	1/27	52	15.3	11.3	18.6	17.8	5

NEVADA COOPERATIVE SNOW SURVEYS

Agencies Cooperating in Collecting Data Contained in this Bulletin

FEDERAL

- Soil Conservation Service
- Forest Service
- Geological Survey
- Bureau of Reclamation
- Fish and Wildlife Service
- Army
- Navy
- Air Force

STATE

- Nevada State Engineer
- Nevada State Forester-Firewarden
- Colorado River Commission of Nevada
- California Cooperative Snow Surveys
- California Division of Water Resources
- Oregon Cooperative Snow Surveys

PRIVATE

- Walker River Irrigation District
- Amalgamated Sugar Company
- Owyhee Project North Board of Control
- Owyhee Project South Board of Control
- Virginia City Water Company
- Kennecott Copper Corporation
- Squaw Valley Development Company
- Pacific Gas & Electric Company
- Nevada Irrigation District

Federal - State - Private

COOPERATIVE SNOW SURVEYS

—

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"